

REMARKS

This is a full and timely response to the outstanding final Office Action mailed January 24, 2008. Upon entry of the amendments in this response, claims 2–11, 13–38, 40–51, 54–59 and 61–68 are pending. In particular, Applicants amend claims 46, 51, 57–59, 62, 63–64, cancel claims 54 and 56, and add claims 67 and 68. Applicants respectfully request that the amendments being filed herewith be entered and request that there be reconsideration of all pending claims.

I. Allowed Subject Matter

The Office Action indicates that claims 2–11, 13–38, 40–45 and 61–66 are allowed. Applicants sincerely appreciate this indication of allowed subject matter.

Applicants also acknowledge the Examiner's indication in the Office Action that claims 48–50 and 57–59 are objected to as being dependent upon a rejected base claim but would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. Applicants have not rewritten the claims objected to since Applicants believe the independent claims are allowable as described below.

II. Claim Rejections - 35 U.S.C. § 103(a)

A. Statement of the Rejections

Claims 46, 51 and 54–56 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent Number 6,014,371 ("*Betts*") in view of U.S. Patent Number 6,611,564 ("*Linz*"). Claim 47 has been rejected under 35 U.S.C. §103(a) as allegedly unpatentable over *Betts* and *Linz* in view of U.S. Patent 5,999,565 ("*Locklear*"). Applicants respectfully traverse these rejections where not rendered moot by amendment and respectfully submit that all presently pending claims are allowable over the art of record.

B. Discussion of the Rejection

The U.S. Patent and Trademark Office ("USPTO") has the burden under section 103 to establish a *prima facie* case of obviousness according to the factual inquiries expressed in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). The four factual inquiries, also expressed in MPEP 2100-116, are as follows:

- (A) Determining the scope and contents of the prior art;
- (B) Ascertaining the differences between the prior art and the claims in issue;
- (C) Resolving the level of ordinary skill in the pertinent art; and
- (D) Evaluating evidence of secondary considerations.

Applicants respectfully submit that a *prima facie* case of obviousness is not established using the art of record. For at least the reasons set forth herein, Applicants respectfully request that the rejections be withdrawn.

For a proper rejection of the claim under 35 U.S.C. §103, the cited combination of references must disclose, teach or suggest all elements / features of the claim at issue. See, e.g., *In re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988) and *In re Keller*, 208 U.S.P.Q.2d 871, 881 (C.C.P.A. 1981).

C. Claims 46 and 47

Independent claim 46 recites, as amended:

46. A method for communicating information packets, the method performed by a Central Office (CO) modem, the method comprising the steps of:
- observing a training process for a plurality of CPE modems;
 - assigning a **single different CPE selector identifier** to each CPE modem based on the training process;
 - generating a polling sequence addressed to each signal and different CPE modem; and

forwarding a plurality of information packets in a burst to the plurality of CPE modems, **wherein each of the plurality of information packet is addressed with the single different CPE selector identifier which identifies the intended destination CPE modem.**

(Emphasis added)

Claim 46 has been rejected under §103(a) as allegedly obvious over *Betts* in view of *Linz*. To the extent that the rejection is not rendered moot by amendment, Applicants respectfully traverse this rejection. The claim has been amended to recite “assigning a **single different CPE selector identifier** to each CPE modem” and “forwarding information packets in a burst to the plurality of CPE modems, **wherein each information packet is addressed with the CPE selector identifier which distinctly identifies the intended destination CPE modem.**” Applicant respectfully submits that claim 46 is allowable for at least the reason that the combination of *Betts* with *Linz* does not disclose, teach, or suggest these features.

The Office Action (page 3) acknowledges that “*Betts* fails to teach [that] the CPE selector identifier is assigned by the CO modem during the training process,” wherein the Office Action describes a “CPE selector identifier” as equivalent to an “address,” “...assigning a CPE selector identifier (address) to each CPE modem...” (Office Action, page 2). The Office Action then combines *Betts* with *Linz* in order to establish an alleged equivalence between an address taught by *Betts* (a CPE selector identifier) and a “symbol” by attempting to equate the “symbol” as taught by *Linz* with the claimed “identifier” (the CPE selector identifier):

However, *Linz* discloses a method and apparatus for communication between a host modem 805 and a plurality peer modems 810, where a **symbol (identifier)** is allocated to each peer modem during the training process (fig. 8-9 col. 8 lines 36-35).

(Office Action, page 3, emphasis added.)

Applicants respectfully submit that equating a “symbol” with an “identifier” is inappropriate because the definition of a “symbol,” as taught by *Linz*, does not correspond to any aspect of an “identifier,” an “address,” or any other identifying attribute of a CPE modem. In

fact, *Linz* explicitly describes a “symbol” as a “supposition [sic] of all the modulated carriers” (i.e., the data to be transmitted), not as a means for identifying a particular modem (*Linz*, col 6, lines 28-29):

The term “symbol” herein refers to a set of time-domain samples produced by the IFFT modulator 330. These include the cyclic prefix, and, for the downstream case, in full-rate host and user modems 205, 210, the number of samples equal 544 (i.e., $512+32$). A new symbol is output every 250us (at a rate of 4000 per second). A symbol carries a total bit load equal to the sum of the number of bits used to modulate each carrier. **The symbol is a supposition [sic] of all the modulated carriers.** For a given connection, the number of bits carried by each carrier of the symbol 410(a-n) is negotiated during a training procedure.

Thus, the “symbol” taught in *Linz* is not an “identifier” as suggested in the instant Office Action but, instead, is the superposition “of all the modulated carriers.” As such, a symbol’s value changes many times a second. This definition and use of a “symbol” is fundamentally incompatible with the definition of an “identifier” (i.e., a unique address) used to uniquely identify a particular CPE modem.

Finally, Applicants’ reading of *Linz* finds no support for the Examiner’s assertion that assignment of one or more symbols within a TDM frame to particular CPE modem is equivalent to assignment of a unique “CSEI Selector Identifier” to a particular CPE modem. In fact, Applicants have reviewed the whole of *Linz* and respectfully submit that nowhere within *Linz* is the assignment of a unique address or identifier to a particular modem disclosed.

As the cited combination of references does not disclose, teach, or suggest, either implicitly or explicitly, all the elements of claim 46 the rejection should be withdrawn for at least that reason.

Dependent claim 47

Claim 47 has been rejected under §103(a) as allegedly obvious over *Betts* and *Linz* in view of *Locklear*. For at least the reason that independent claim 46 is allowable for the reasons

discussed above, Applicants respectfully submit that dependent claim 47 is allowable for the additional and separate reason that it depends from an allowable claim. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596 (Fed. Cir. 1988). The addition of *Locklear* fails to cure the deficiencies of *Betts* and *Linz*. Therefore, Applicants respectfully request that the rejection of claim 47 be withdrawn.

D. Claims 51 and 54- 56

Independent claim 51 recites, as amended:

51. A method for receiving information packets, the method performed by a CPE modem, the method comprising the steps of:

- training the CPE modem;
- during the training, learning a **single different CPE selector identifier** associated with the CPE modem;
- receiving a burst of a plurality of packets addressed to the learned single different CPE selector identifier;
- responding to the burst of the plurality of packets addressed to the learned single different CPE selector identifier; and
- generating a reply burst of a plurality of packets to each polling sequence addressed to the learned CPE selector identifier.

(Emphasis added).

Claim 51 has been rejected under §103(a) as allegedly obvious over *Betts* in view of *Linz*. To the extent that the rejection is not rendered moot by amendment, Applicants respectfully traverse this rejection. Applicants respectfully submit that *Betts* in view of *Linz* fails to disclose, teach, and suggest at least the above emphasized claimed features for similar reasons as discussed above in regards to claim 46. Thus, for at least these reasons, Applicants respectfully request that the rejection of claim 51 be withdrawn.

Dependent Claim 55

For at least the reason that independent claim 51 is allowable for the reasons discussed above, Applicants respectfully submit that dependent claims 55 is allowable for the additional and separate reason that each depends from an allowable claim. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596 (Fed. Cir. 1988). Therefore, Applicants respectfully request that the rejection of claims 54-56 be withdrawn.

Dependent Claim 54 and 56

Dependent claims 54 and 56 are cancelled without prejudice, waiver, or disclaimer, and the rejection of these claims are therefore rendered moot. Applicant takes this action merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicants reserve the right to pursue the subject matter of these cancelled claims in a continuing application, if Applicants so choose, and do not intend to dedicate any of the cancelled subject matter to the public. Applicants expressly reserve the right to present cancelled claims, or variants thereof, in continuing applications to be filed subsequent to the present application.

CONCLUSION

Applicants respectfully submit that Applicants' pending claims are in condition for allowance. Any other statements in the Office Action that are not explicitly addressed herein are not intended to be admitted. In addition, any and all findings of inherency are traversed as not having been shown to be necessarily present. Furthermore, any and all findings of well-known art and official notice, and similarly interpreted statements, should not be considered well known since the Office Action does not include specific factual findings predicated on sound technical and scientific reasoning to support such conclusions. Favorable re-consideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

/ Karen G. Hazzah/
Karen G. Hazzah
Reg. No. 48,472

**THOMAS, KAYDEN,
HORSTEMEYER & RISLEY, L.L.P.**
Suite 1500
600 Galleria Parkway N.W.
Atlanta, Georgia 30339
(770) 933-9500